

Page 11, line 4, delete "X" and insert therefor --Z--.

After Page 16, but before Page 17, add four (4) Tables of listed data respectfully labeled "Table 1", "Table 2", "Table 3" and "Table 4", attached hereto on four (4) separate sheets of paper.

IN THE CLAIMS:

Cancel claims 6-7, 13, 16 and 30.

Amend claims 1-5, 8-9, 11-12, 14-15, 17-26, 29, 31-32 and 34-35 to read as follows:

1. (Amended) An antenna for a transponder comprising a magnetic core composed of [layered] a single stack of rectangular metallic thin plates, and a coil wound on said magnetic core parallel to [longer side] a greater rectangular dimension of said magnetic core.

2. (Amended) An antenna for a transponder according to claim 1, wherein corners of said thin [plate] plates are [cut or] rounded.

3. (Amended) An antenna for a transponder according to claim 1, wherein [the] said thin [plate comprises] plates comprise an amorphous magnetic material.

4. (Amended) An antenna for a transponder according to claim 1, wherein the thickness of [the] each one of said thin [plate] plates is 20 to 50 μm .

Q1
cont. 5. (Amended) An antenna for a transponder according to claim 1, wherein [the number of the layered thin plates is 3 to 16] said magnetic core comprises three to sixteen of said thin plates.

Q2 8. (Amended) An antenna for a transponder according to claim 1, wherein [the] said thin plates are insulated from one another by oxidizing each of their surfaces [are layered].

9. (Amended) An antenna for a transponder according to claim 1, wherein the diameter of [the coil] a conductor comprising said coil is 100 to 200 μm .

Q2 11. (Amended) An antenna for a transponder according to claim 1, wherein said antenna for a transponder is a size suitable [to carry] for use as at least one of an ID card, a commuter pass [or] and a coupon ticket which operates at a frequency of 40 to 200 kHz.

SUB 12. (Amended) A plate transponder comprising two plate antennas composed of a wound conductor on a magnetic core composed of layered metallic thin plates, and an air-core antenna composed of a spirally wound conductor.

A3 cont. wherein said three antenna have respective axes which are mutually perpendicular to one another.

A4 14. (Amended) A transponder according to claim 12, wherein said two plate antennas are provided in the plate transponder so that the axes of said [two antennas or] coils are perpendicular to each other, and said air-core antenna composed of the spirally wound conductor is provided in the plate transponder so that the axis thereof is perpendicular to the transponder [Plate] plate.

15. (Amended) A transponder according to claim 12, wherein a magnetic recording layer [such as a magnetic stripe] is provided on the surface of the transponder, and antennas are provided inside the transponder.

A5 17. (Amended) A transponder according to claim 12, wherein embossment is formed on [the] sections other than said antennas, complimentary circuits, and a magnetic recording layer.

18. (Amended) A transponder according to claim 12, wherein said transponder is a size suitable [to carry] for use as at least one of an ID card, a commuter pass [or] and a coupon ticket which operates at a frequency of 40 to 200 kHz.

Sub B2 19. (Amended) An antenna for a transponder comprising a rectangular plate magnetic core composed of a composite material of soft magnetic flakes and a synthetic resin, and a coil wound on said magnetic core perpendicular to a greater rectangular dimension of the magnetic core.

Q5
cont. 20. (Amended) An antenna for a transponder according to claim 19, wherein the soft magnetic material composing each one of said [flake] flakes is selected from the group consisting of pure iron, silicon steel, a permalloy [(an Fe-Ni alloy)] and an iron/cobalt amorphous alloy.

21. (Amended) An antenna for a transponder according to claim 20, wherein the soft magnetic material composing each one of said [flake] flakes is a cobalt amorphous alloy [(Co-Fe-Ni-B-Si)].

22. (Amended) An antenna for a transponder according to claim 19, wherein each one of said [flake] flakes has a thickness of 30 μm or less and a diameter of 50 to 2,000 μm .

23. (Amended) An antenna for a transponder according to claim 19, wherein each one of said [flake] flakes has a thickness of 10 μm or less and a diameter of 100 to 1,000 μm .

24. (Amended) An antenna for a transponder according to claim 19, wherein said synthetic resin is selected from the group consisting of [the] thermoset resins, [e.g.] including epoxy resins, phenol resins, urea resins, unsaturated polyester resins, diacrylphthalate resins, melamine resins, silicone resins, and polyurethane resins; and thermoplastic resins, [e.g.] including polyethylene resins, polypropylene resins, vinyl chloride resins, fluoroplastics, methacrylate resins, polystyrene resins, AS resins, ABS resins, ABA resins, polycarbonate resins, polyacetal resins, and polyimide resins.

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cont.

25. (Amended) An antenna for a transponder according to claim 19, wherein the amount of said synthetic resin in the composite material is 3 to 50 [weight %] % by weight.

26. (Amended) An antenna for a transponder according to claim 19, wherein said flake comprises a cobalt base amorphous alloy, said synthetic resin is an epoxy resin, and the amount of said synthetic resin in the composite material is 10 to 40 [weight %] % by weight.

29. (Amended) An antenna for a transponder according to claim 19, wherein the diameter of [the coil] a conductor comprising said coil is 100 to 200 μm .

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31. (Amended) An antenna for a transponder according to claim 19, wherein said antenna for a transponder is a size suitable [to carry] for use as at least one of an ID card, a commuter pass [or] and a coupon ticket which operates at a frequency over 100 kHz.

Q7 32. (Amended) An transponder comprising two plate antennas set forth in claim 19, and an air-core antenna composed of a spirally wound conductor, wherein said three antennas have respective axes which are mutually perpendicular to one another.

Q8 34. (Amended) A transponder according to claim 32, wherein said two plate antennas are provided in the plate transponder so that the axes of said two [antennas or] coils are perpendicular to each other, and said air-core antenna composed of the spirally wound conductor is provided in the plate transponder so that the axis thereof is perpendicular to the transponder plate.

35. (Amended) A transponder according to claim 32, wherein said antenna for a transponder is a size suitable [to carry] for use as at least one of an ID card, a commuter pass [or] and a coupon ticket which operates at a frequency over 100 kHz.
